

**AMENDMENTS TO THE CLAIMS**

Status is in parenthetical expression, strike-through shows deleted matter, and underlining shows added matter.

**Claim 1 (Previously Amended):** A method for determining the presence of thyroid-stimulating antibodies in a test sample, comprising:

- a) providing:
  - i) a test sample suspected of containing thyroid-stimulating antibodies,
  - ii) CHO-Rluc cells comprising a reporter gene, and
  - iii) polyethylene glycol;
- b) exposing said test sample to said cells and said polyethylene glycol under conditions such that said reporter gene is expressed; and
- c) observing increased expression of said reporter gene in said cells in the presence of said test sample compared to in the absence of said test sample, thereby detecting the presence of thyroid-stimulating antibodies.

**Claim 2 (Previously Cancelled).**

**Claim 3 (Original):** The method of Claim 1, wherein said observing is conducted using a luminometer.

**Claim 4 (Previously Amended):** The method of Claim 1, wherein said observing further comprises measuring cyclic adenosine monophosphate concentration.

**Claim 5 (Currently Amended):** The method of Claim 1, wherein said CHO-Rluc cells are cultured in further comprising a Growth Medium.

**Claim 6 (Currently Amended):** The method of Claim 1, wherein said CHO-Rluc cells are cultured in further comprising a Stimulation Medium.

**Claim 7 (Previously Amended):** The method of Claim 5, wherein said cells are exposed to said Growth Medium prior to exposure of said test sample.

**Claim 8 (Previously Amended):** The method of Claim 6, wherein said cells are exposed to said Stimulation Medium after exposure to said test sample.

Claim 9 (Previously Amended): The method of Claim 8, wherein said Stimulation Medium comprises said polyethylene glycol.

Claim 10 (Previously Amended): A method for determining the presence of thyroid-stimulating antibodies in a test sample, comprising:

- a) providing:
  - i) a test sample suspected of containing thyroid-stimulating antibodies,
  - ii) CHO-Rluc cells comprising a reporter gene, and
  - iii) polyethylene glycol;
- b) exposing said test sample to said cells and said polyethylene glycol under conditions such that said reporter gene is expressed; and
- c) observing increased expression of said reporter gene in said cells in the presence of said test sample compared to in the absence of said test sample, thereby detecting the presence of thyroid-stimulating antibodies, wherein said observing utilizes a luminometer.

Claim 11 (Currently Amended): The method of Claim 10, wherein said CHO-Rluc cells are cultured in further comprising a Growth Medium.

Claim 12 (Currently Amended ): The method of Claim 10, wherein said CHO-Rluc cells are cultured in further comprising a Stimulation Medium.

Claim 13 (Previously Amended): The method of Claim 11, wherein said cells are exposed to said Growth Medium prior to exposure of said test sample.

Claim 14 (Previously Amended): The method of Claim 12, wherein said cells are exposed to said Stimulation Medium after exposure to said test sample.

Claim 15 (Previously Amended): The method of Claim 14, wherein said Stimulation Medium comprises said polyethylene glycol.

Claim 16 (Currently Amended): A method for determining the presence of thyroid-stimulating antibodies in a test sample, comprising:

- a) providing:
  - i) a test sample suspected of containing thyroid-stimulating antibodies,
  - ii) CHO-Rluc cells comprising a reporter gene,

- iii) Growth Medium, and
- iv) Stimulation Medium, wherein said Stimulation Medium comprises polyethylene glycol;
- b) exposing said said cells to said Growth Medium to produce grown cells;
- c) exposing said test sample to said grown cells and said Stimulation Medium under conditions such that said reporter gene is expressed; and
- d) observing increased expression of said reporter gene in said cells in the presence of said test sample compared to in the absence of said test sample, thereby detecting the presence of thyroid-stimulating antibodies, wherein said observing utilizes a luminometer.

**Claim 17 (Previously Cancelled).**

Claim 18 (Previously Amended): The method of Claim 16, wherein said observing further comprises measuring the cyclic adenosine monophosphate concentration.

Claim 19 (Previously Amended): A method for determining the presence of thyroid-stimulating antibodies in a test sample, comprising:

- a) providing:
  - i) a test sample suspected of containing thyroid-stimulating antibodies,
  - ii) CHO-Rluc cells comprising a reporter gene, and
  - iii) polyethylene glycol;
- b) exposing said CHO-Rluc cells to said test sample and to said polyethylene glycol under conditions such that said reporter gene is expressed; and
- c) observing increased expression of said reporter gene in said cells in the presence of said test sample compared to in the absence of said test sample, thereby detecting the presence of thyroid-stimulating antibodies, wherein luciferase activity in a control sample comprising CHO-Rluc cells exposed to bovine thyroid stimulating hormone is higher in the presence of polyethylene glycol than in the absence of said polyethylene glycol.

Claim 20 (Previously Amended): A method for determining the presence of thyroid-stimulating antibodies in a test sample, comprising:

- a) providing:
  - i) a test sample suspected of containing thyroid-stimulating antibodies,
  - ii) CHO-Rluc cells comprising a reporter gene, and

- iii) polyethylene glycol;
- b) exposing said CHO-Rluc cells to said test sample and to said polyethylene glycol under conditions such that said reporter gene is expressed; and
- c) observing increased expression of said reporter gene in said cells in the presence of said test sample compared to in the absence of said test sample, thereby detecting the presence of thyroid-stimulating antibodies, wherein said observing utilizes a luminometer, and wherein luciferase activity in a control sample comprising CHO-Rluc cells exposed to bovine thyroid stimulating hormone is higher in the presence of polyethylene glycol than in the absence of said polyethylene glycol.

Claim 21 (Previously Amended): A method for determining the presence of thyroid-stimulating antibodies in a test sample, comprising:

- a) providing:
  - i) a test sample suspected of containing thyroid-stimulating antibodies,
  - ii) CHO-Rluc cells comprising a reporter gene,
  - iii) Growth Medium, and
  - iv) Stimulation Medium, wherein said Stimulation Medium comprises polyethylene glycol;
- b) exposing said cells to said Growth Medium to produce grown cells;
- c) exposing said grown cells to said test sample and to said Stimulation Medium under conditions such that said reporter gene is expressed, and
- d) observing increased expression of said reporter gene in said cells in the presence of said test sample compared to in the absence of said test sample, thereby detecting the presence of thyroid-stimulating antibodies, wherein said observing utilizes a luminometer, and wherein luciferase activity in a control sample comprising CHO-Rluc cells exposed to bovine thyroid stimulating hormone is higher in the presence of polyethylene glycol than in the absence of said polyethylene glycol.

Claim 22 (Previously Added): The method of Claim 19, wherein said observing is conducted using a luminometer.

Claim 23 (Previously Added): The method of Claim 19, wherein said observing further comprises measuring cyclic adenosine monophosphate concentration.

Claim 24 (Currently Amended): The method of Claim 19, wherein said CHO-Rluc cells are cultured in further comprising a Growth Medium.

Claim 25 (Currently Amended): The method of Claim 19, wherein said CHO-Rluc cells are cultured in further comprising a Stimulation Medium.

Claim 26 (Previously Added): The method of Claim 24, wherein said cells are exposed to said Growth Medium prior to exposure of said test sample.

Claim 27 (Previously Added): The method of Claim 25, wherein said cells are exposed to said Stimulation Medium after exposure to said test sample.

Claim 28 (Previously Added): The method of Claim 27, wherein said Stimulation Medium comprises said polyethylene glycol.

Claim 29 (Currently Amended): The method of Claim 20, wherein said CHO-Rluc cells are cultured in further comprising a Growth Medium.

Claim 30 (Currently Amended): The method of Claim 20, wherein said CHO-Rluc cells are cultured in further comprising a Stimulation Medium.

Claim 31 (Previously Added): The method of Claim 29, wherein said cells are exposed to said Growth Medium prior to exposure of said test sample.

Claim 32 (Previously Added): The method of Claim 30, wherein said cells are exposed to said Stimulation Medium after exposure to said test sample.

Claim 33 (Previously Added): The method of Claim 32, wherein said Stimulation Medium comprises said polyethylene glycol.

Claim 34 (Previously Added): The method of Claim 21, wherein said observing further comprises measuring the cyclic adenosine monophosphate concentration.